

REMARKS

The Office Action of July 20, 2010, has been carefully considered.

Claim 6 has been rejected under 35 USC 112, second paragraph, in the use of the term "similar propulsion device."

Claim 6 has now been amended to recite "a propulsion device," thus obviating the cited objection, and withdrawal of this rejection is requested.

Claims 6, 9, 11 and 12 have been rejected under 35 USC 102(b) as anticipated by Thaxton et al, and Claims 7, 8 10 13 and 14 have been rejected under 35 USC 103(a) over Thaxton et al in view of Botvinnik et al.

It is noted that Claim 6 includes the following elements:

- 1) a synchronous, permanent electrical generator having an electrical output and a plurality of poles, powered directly by the driving machine; and
- 2) a synchronous, permanent magnet electrical propulsion motor having a plurality of poles, powered by the output of the electrical generator, with a fixed and direct electrical connection thereto.

According to the invention, there is therefore a fixed and direct electrical connection between the electrical propulsion motor and the permanent magnet electrical generator. This is not the case according to Thaxton et al.

According to Thaxton et al, "a propulsion modular PWM multi-level, multi-circuit power converter" is connected to receive power from the generator and to provide variable voltage and frequency power, the power being provided to the AC propulsion motor. This is clear from Claim 1 and is disclosed throughout the specification.

While Thaxton et al may therefore use a permanent magnet generator, a frequency converter is always used between the generator and the propulsion motor. There is no fixed and

direct connection, as there is according to the claimed invention.

Claims 6 and 7 of Thaxton et al describe an arrangement for the reduction of harmonic disturbances created by the power electronics (in Figure 3 of Thaxton et al, transformers 67-74). According to the claimed invention, with the permanent magnet generator, no harmonic disturbances are created and the generator is not sensitive to such disturbances. As Thaxton et al does not appreciate this feature of permanent magnet generators, it appears that the disclosure of permanent magnet generators may well be theoretical.

Thaxton et al is thus dependent on the use of frequency converters to change the rotational speed, while according to the invention, rotational speed may be changed without the use of a frequency converter.

Moreover, in the abstract, Thaxton et al states that the apparatus "includes a turbine driven AC generator which supplies AC power at a frequency of 240 Hz through a switchgear unit to a transformer and a first power converter by which the power is converted to a variable frequency." The claimed invention has no such switchgear unit.

In Thaxton et al, the pole configuration for the motor is optimized in relation to the frequency converter, while according to the invention the pole configuration of the motor is configured in relation to the generator.

Based upon the above-cited distinctions between Thaxton et al and the invention, it is clear that one of ordinary skill in the art could not derive the invention based either upon Thaxton et al taken alone, or in combination with Botvinnik et al.

Withdrawal of these rejections is accordingly requested.

In view of the foregoing amendments and remarks,

Applicants submit that the present application is now in condition for allowance. An early allowance of the application with amended claims is earnestly solicited.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Ira J. Schultz", with a stylized flourish at the end.

Ira J. Schultz
Registration No. 28666
Attorney for Applicants
(703)837-9600, ext. 23